ATTACHMENT A

1. (original) A device for measuring the position, path, or rotational angle of an object, with a dimensional gauge connected to the object which can be scanned and which assigns measured values to the object's positional range, where these measured values repeat themselves cyclically in the object's successive positional ranges, and with an encoding unit which encodes the number of the completed measured value cycles, where the encoding unit exhibits at least two code disks which are driven by the dimensional gauge by means of reduction gears,
wherein
the code disks (3, 4, 5) exhibit an absolute angular encoding capability (34, 44, 54), the code disks (3, 4 or 4, 5) are arranged in succession and are coupled by a differential gear drive (21, 30, 40 or 22, 45, 50), and the number of completed measured value cycles is ascertained from the reciprocal angular positions of the code disks (3, 4, 5).

2. (original) A device according to claim 1,
wherein
the reduction ratio for driving two successive code disks (3, 4 or 4, 5) is $1/2^n$.

3. (original) A device according to claim 2,
wherein
the successive code disks (3, 4 or 4, 5) are driven jointly by means of a drive gear (21 or 22) and each code disk exhibits a different number of teeth.

4. (original) A device according to claim 3,
wherein
the drive gears (21, 22) each exhibit 15 teeth and one code disk exhibits 60 teeth, while the other code disk exhibits 64 teeth.

5. (original) A device according to claim 4,
wherein
the encoding unit exhibits three code disks (3, 4, 5), so that 4096 measured value cycles can be counted.

6. (currently amended) A device according to ~~one of the preceding claims,~~ claim 1,
wherein
the code disks (3, 4, 5) each exhibits an absolutely encoded angular division involving 32 angular increments.

7. (original) A device according to claim 6,
wherein

the encoding of the angular division is created by a pseudo-random code with at least 2 x 5 bit.

8. (currently amended) A device according to ~~one of the preceding claims,~~ claim 1,
wherein
the code disks (3, 4, 5) are coaxially positioned, while the code tracks (34, 44, 54) of the angular encoding capability of the code disks (3, 4, 5) are located on annular disks (33, 43, 53) that are concentrically positioned on one plane.

9. (original) A device according to claim 8,
wherein
the code tracks (34, 44, 54) of all the code disks (3, 4, 5) are illuminated by a common light transmitter (14) and are scanned by a scanning unit (15) that radially covers the code tracks (34, 44, 54) of all the code disks (3, 4, 5).

10. (currently amended) A device according to claim 8 ~~or 9~~,
wherein
the complete encoding unit is designed as an electronic component that is suitable for attachment to a printed circuit board.

11. (currently amended) A device according to claim 8 ~~or 9~~,

wherein
the code disks (3, 4, 5) exhibit gearwheels (30, 40, 45, 50) which are axially displaced relative to each other.

12. (original) A device according to claim 11,
wherein
two gearwheels (30, 40 or 45, 50) of the successive code disks (3, 4 or 4, 5) are driven by a joint drive gear (3, 4, or 4, 5), whose outer circumference engages with the two gearwheels (30, 40 or 45, 50) and extends axially above the two gearwheels (30, 40 or 45, 50).

13. (currently amended) A device according to ~~one of claims 8 to 12,~~ claim 8,
wherein
the gearwheels (30, 40, 45, 50) of all the code disks (3, 4, 5) are circular in design, and the code tracks (34, 44, 54) of all the code disks (3, 4, 5) and the optical path of the light transmitter (14) are located in the open interior of the gearwheels (30, 40, 50).

14. (currently amended) A device according to ~~one of claims 8 to 13,~~ claim 8,
wherein
the light transmitter (14) is positioned on a base plate (10), which supports the bearing arrangement for the code disks (3, 4, 5) and for

the drive gears (21, 22), and the scanning unit (15) is positioned on a cover plate (12) opposite the base plate (10).

15. (original) A device according to claim 14,
wherein
the base plate (10) and the cover plate (12) are designed as printed circuit boards.

16. (currently amended) A device according to claim 14 ~~or 15~~,
wherein
the base plate (10) and the cover plate (12) axially close off on either end a housing part (11) which receives the code disks (3, 4, 5).

17. (currently amended) A device according to ~~one of claims 8 to 16,~~ claim 8,
wherein
the code disks (3, 4, 5), along with their gearwheels (30, 40, 45, 50) and the annular disks (33, 43, 53) carrying the code tracks (34, 44, 54), are single-piece injection-molded parts of transparent plastic.